6JT6

Beam Power Tube

NOVAR TYPE

For TV Horizontal-Deflection Amplifier Applications

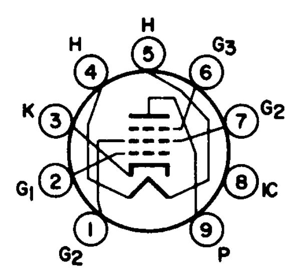
Electrical:

Heater Ratings and Characteristics:		
Voltage (AC or DC)	6.3 ± 0.6	volts
Current at heater volts = 6.3	1.200	amp
Peak heater-cathode voltage:		
Heater negative with respect to cathode .	200 max.	volts
Heater positive with respect to cathode .	200[a] max.	volts
Direct Interelectrode Capacitances (Approx.):[b]		
Grid No.1 to plate.	0.26	pf
Input: G1 to (K,G3,G2,H)	15.0	pf
Output: P to (K,G3,G2,H)	6.5	pf

Mechanical:

Operating Position. . . . . Any
Type of Cathode . . . . Coated Unipotential
Maximum Overall Length. . . . . 3.180"
Maximum Seated Length . . . . 2.800"
Diameter. . . . . 1.438" to 1.562"
Bulb. T12
Base. . . . . Large-Button Novar 9-Pin (JEDEC No.E9-76)
Basing Designation for BOTTOM VIEW. 9QU

Pin 1 - Grid No.2
Pin 2 - Grid No.1
Pin 3 - Cathode
Pin 4 - Heater
Pin 5 - Heater



Pin 6 - Grid No.3
Pin 7 - Grid No.2
Pin 8 - Do Not Use
Pin 9 - Plate

Characteristics, Class A_1 Amplifier:

	Triode Connection[c]			
Plate Voltage.	150	60	250	volts
Grid No.3.	–	*Connected to Cathode at socket*		
Grid-No.2 Voltage.	150	150	150	volts
Grid-No.1 Voltage.	-22.5	0	-22.5	volts
Amplification Factor	4.4	–	–	
Plate Resistance (Approx.) . . .	–	–	15000	ohms
Transconductance	–	–	7100	μmhos
Plate Current.	–	390[d]	70	ma
Grid-No.2 Current.	–	32[d]	2.1	ma
Grid-No.1 Voltage (Approx.) for plate ma = 1	–	–	-42	volts

HORIZONTAL-DEFLECTION AMPLIFIER

Maximum Ratings, *Design-Maximum Values:*

For operation in a 525-line, 30-frame system[e]

DC Plate Supply Voltage	770	max.	volts
Peak Positive-Pulse Plate Voltage[f]	6500	max.	volts
Peak Negative-Pulse Plate Voltage	1500	max.	volts
DC Grid-No.3 (Suppressor-Grid) Voltage[g]	70	max.	volts
DC Grid-No.2 (Screen-Grid) Voltage	220	max.	volts
DC Grid-No.1 (Control-Grid) Voltage:			
Negative-bias value	55	max.	volts
Peak Negative-Pulse Grid-No.1 Voltage	330	max.	volts
Cathode Current:			
Peak	550	max.	ma
Average	175	max.	ma
Grid-No.2 Input	3.5	max.	watts
Plate Dissipation[h]	17.5	max.	watts
Bulb Temperature (At hottest point on bulb surface)	240	max.	°C

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:			
For grid-resistor-bias operation	1	max.	megohm

a The dc component must not exceed 100 volts.

b Without external shield.

c With grid No.2 connected to plate at socket.

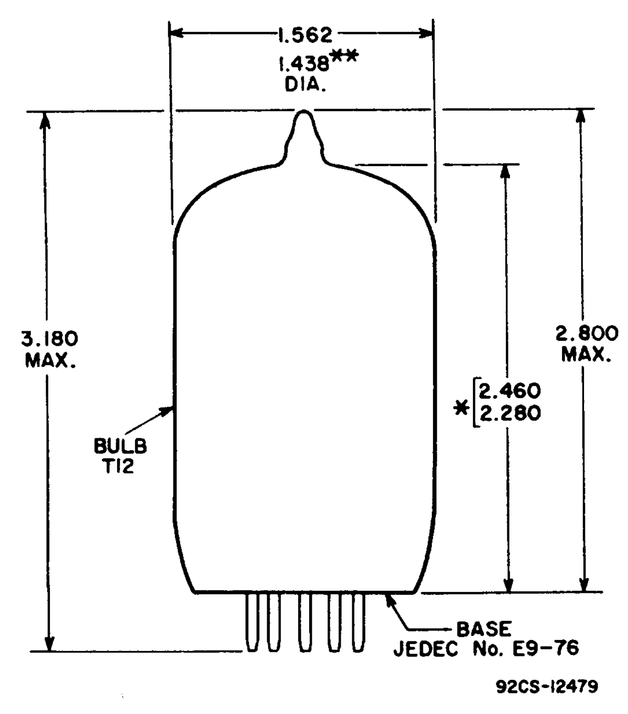
d This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.

e As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.

f This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.

g A positive voltage may be applied to grid No.3 to reduce interference from "snivets" which may occur in television receivers. A typical value for this voltage is 30 volts.

h An adequate bias resistor or other means is required to protect the tube in the absence of excitation.



* Measured from base seat to bulb-top line as determined by a ring gauge of 0.600" inside diameter.

** The minimum applies in the zone starting 0.375" from the base seat.

AVERAGE CHARACTERISTICS

